

PATENT

**DECLARATION AND POWER OF ATTORNEY FOR  
UNITED STATES LETTERS PATENT APPLICATION**

As a below-named inventor(s), I, Keith D. Trott, Joseph P. Biondi, Ronni J. Cavener, Robert V. Cummings, James M. McGuinnis, Thomas V. Sikina and Erdem A. Yurteri, hereby declare that:

My residence, post-office address and citizenship are as stated below next to my name.

I believe I am an original, first and sole inventor or if more than one name is listed below, an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled: WIDEBAND PHASED ARRAY RADIATOR, the specification of which is attached hereto and identified as Attorney Case No. RTN-141PUS and Raytheon Case No. 00E112.

I hereby state that I have reviewed and understand the contents of the above-identified application specification, including the claims, as amended by any amendment specifically referred to herein.

I acknowledge the duty to disclose all information known to me that is material to patentability in accordance with Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code §119(a)-(d) of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

**EARLIEST FOREIGN APPLICATION(S), IF ANY FILED WITHIN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION**

| Country | Application Number | Date of Filing<br>(month, day, year) | Priority Claimed<br>Under 35 USC 119 |
|---------|--------------------|--------------------------------------|--------------------------------------|
|         |                    |                                      | _ Yes   No _                         |
|         |                    |                                      | _ Yes   No _                         |
|         |                    |                                      |                                      |
|         |                    |                                      |                                      |

**ALL FOREIGN APPLICATION(S), IF ANY FILED MORE THAN 12 MONTHS (6 MONTHS  
FOR DESIGN) PRIOR TO THIS U.S. APPLICATION**

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I hereby claim priority benefits under Title 35, United States Code §119(e), of any United States provisional patent application(s) listed below:

| Application Number | Date of Filing<br>(month, day, year) | Priority Claimed<br>Under 35 USC 119(e)                  |
|--------------------|--------------------------------------|--|
|                    |                                      | <input type="checkbox"/> Yes <input type="checkbox"/> No |
|                    |                                      | <input type="checkbox"/> Yes <input type="checkbox"/> No |
|                    |                                      | <input type="checkbox"/> Yes <input type="checkbox"/> No |

I hereby claim the benefit under Title 35, United States Code §120, of the United States Application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United State Code, §112, I acknowledge the duty to disclose all information that is material to patentability in accordance with Title 37, Code of Federal Regulations, §1.56, and which became available to me between the filing date of the prior application and the national or PCT international filing date of this application:

| Application Number | Date of Filing<br>(month,day,year) | Status<br>(Patented/Pending/Abandoned) |
|--------------------|------------------------------------|--|
|                    |                                    |  |
|                    |                                    |  |

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

I hereby appoint:

|                      |                 |
|----------------------|-----------------|
| Glenn H. Lenzen, Jr. | Reg. No. 29,320 |
| Robin R. Loporchio   | Reg. No. 40,071 |
| Peter Dulchinos      | Reg. No. 33,379 |
| Edward S. Roman      | Reg. No. 25,778 |

all of Raytheon Company, Intellectual Property Department, 141 Spring Street, Lexington, MA 02142

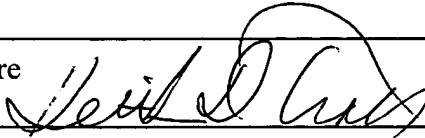
and I hereby appoint:


|                       |                 |
|-----------------------|-----------------|
| Christopher S. Daly   | Reg. No. 37,303 |
| Judith C. Crowley     | Reg. No. 35,091 |
| Donald F. Mofford     | Reg. No. 33,740 |
| Paul D. Durkee        | Reg. No. 41,003 |
| Richard M. Sharkansky | Reg. No. 25,800 |
| David W. Rouille      | Reg. No. 40,150 |
| Kermit Robinson       | Reg. No. 48,734 |
| Robert V. Klauzinski  | Reg. No. 42,742 |
| Cathy L. Peterson     | Reg. No. 41,249 |


all of Daly, Crowley & Mofford, LLP, 275 Turnpike Street, Suite 101, Canton, Massachusetts 02021-2310, jointly, and each of them severally, my attorneys at law, with full power of substitution, delegation and revocation, to prosecute this application, to make alterations and amendments therein, to receive the patent, and to transact all business in the Patent and Trademark Office connected therewith.

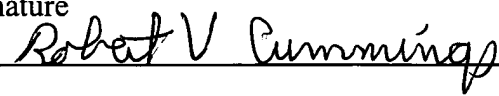
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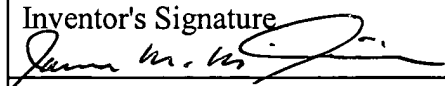
Christopher S. Daly  
Daly, Crowley & Mofford, LLP  
275 Turnpike Street, Suite 101  
Canton, MA 02021-2310  
Telephone No. (781) 401-9988 x24  
Facsimile: (781) 401-9966

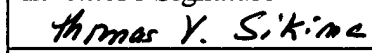
|   |                 |
|---|-----------------|
| Full name of sole or First Joint Inventor<br>Keith D. Trott   |                 |
| Inventor's Signature<br> | Date<br>7/23/03 |
| Residence<br>37 Trowbridge Lane, Shrewsbury, MA 01545   |                 |
| Country of Citizenship<br>USA   |                 |
| Post Office Address (if different)  |                 |


|   |                 |
|---|-----------------|
| Full name of Second Joint Inventor<br>Joseph P. Biondi  |                 |
| Inventor's Signature<br> | Date<br>7/24/03 |
| Residence<br>216 Old Turnpike Road, Townsend, MA 01474  |                 |
| Country of Citizenship<br>USA   |                 |
| Post Office Address (if different)  |                 |

|  |                   |
|--|-------------------|
| Full name of Third Joint Inventor<br>Ronni J. Cavener  |                   |
| Inventor's Signature<br> | Date<br>7/24/2003 |
| Residence<br>119 Main Street, Andover, MA 01810  |                   |
| Country of Citizenship<br>USA  |                   |
| Post Office Address (if different)   |                   |

|   |                 |
|---|-----------------|
| Full name of Fourth Joint Inventor<br>Robert V. Cummings  |                 |
| Inventor's Signature<br> | Date<br>7-23-03 |
| Residence<br>104 Evelina Drive, Marlborough, MA 01752   |                 |
| Country of Citizenship<br>USA   |                 |
| Post Office Address (if different)  |                 |

|   |                 |
|---|-----------------|
| Full name of Fifth Joint Inventor<br>James M. McGuinnis   |                 |
| Inventor's Signature<br> | Date<br>7/28/03 |
| Residence<br>18 Peggy Lane, Salem, NH 03079   |                 |
| Country of Citizenship<br>USA   |                 |
| Post Office Address (if different)  |                 |

|  |                   |
|--|-------------------|
| Full name of Sixth Joint Inventor<br>Thomas V. Sikina  |                   |
| Inventor's Signature<br> | Date<br>7/23/2003 |
| Residence<br>95 Main Street, Acton, MA 01720   |                   |
| Country of Citizenship<br>USA  |                   |
| Post Office Address (if different)   |                   |

|   |                   |
|---|-------------------|
| Full name of Seventh Joint Inventor<br>Erdem A. Yurteri   |                   |
| Inventor's Signature<br> | Date<br>7/30/2003 |
| Residence<br>2 Museum Square, Apt. 305, Lawrence, MA 01890  |                   |
| Country of Citizenship<br>USA   |                   |
| Post Office Address (if different)  |                   |

**SUPPLEMENTAL DECLARATION AND POWER OF ATTORNEY FOR  
UNITED STATES LETTERS PATENT APPLICATION**

As a below-named inventor(s), I, Fernando Beltran, hereby declare that:

My residence, post-office address and citizenship are as stated below next to my name.

I believe I am an original, first and sole inventor or if more than one name is listed below, an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled: **WIDEBAND PHASED ARRAY RADIATOR**, the specification of which is attached hereto and identified as Attorney Case No. RTN-141PUS and Raytheon Case No. 00E112.

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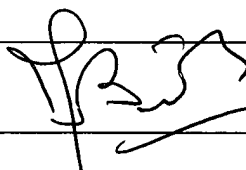
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Canton, MA 02021-2310  
Telephone No. (781) 401-9988 x24  
Facsimile: (781) 401-9966

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|---|-----------------|
| Full name of Joint Inventor<br>Fernando Beltran   |                 |
| Inventor's Signature<br> | Date<br>8/18/03 |
| Residence<br>166 West Way, Mashpee, MA 026494   |                 |
| Country of Citizenship<br>USA   |                 |
| Post Office Address (if different)  |                 |